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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,075

09/22/2004

Raoul Donath

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EXAMINER

WOODALL, NICHOLAS W

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

12/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/509,075

Applicant(s)

DONATH, RAOUL

Examiner

Nicholas Woodall

Art Unit

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/18/2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bono (U.S. Patent 6,755,829) in view of Matsuda (U.S. Patent (5,395,003)).

Regarding claims 11 and 19, Bono discloses a device comprising a connection element, a sealing cap, and a tensioning means. The connection element includes a central axis, an external surface, an upper end, a lower end, a cavity extending coaxially along the central axis from the upper end to the lower end, the cavity having a reduced diameter portion at the lower end forming at least one shoulder therein, and a first channel passing through the connection element transversely to the central axis for

receiving the longitudinal carrier. The sealing cap includes a front end, a rear end, a second cavity opening at the front end for receiving the connection element, and a second channel extending transversely to the central axis and opening towards the front end of the sealing cap. The tensioning means is capable of engaging the rear end of the sealing cap for securing the position of the longitudinal carrier inserted in the channel with respect to the connection element. Bono further discloses the external surface of the connecting element and the internal surface of the second cavity formed in the sealing cap include complementary arresting means in order to secure the sealing cap to the connection element, wherein the complementary arresting means extend continuously, concentrically, and non-threadingly around the central axis on the connection element external surface and the sealing cap internal surface, wherein the concentric continuity of the arresting means is interrupted by the first and second channels. Regarding claim 13, Bono discloses a device further comprising a bone fixation means having a central axis, a front segment, and an axially adjoining rear segment, wherein the rear segment has a cylindrical form capable of engaging the shoulder, and the front segment extends through the lower end of the connection element capable of engaging the bone. Regarding claim 14, Bono discloses a device wherein the bone fixation means comprises a pedicle screw with a screw shaft having an external thread and a screw head at an end thereof. Regarding claim 15, Bono discloses a device wherein the tensioning means is a set screw. Bono fails to disclose a device wherein the complementary arresting means including non-threaded projections and recesses providing a plurality of discrete axial latch positions parallel to the central

axis, wherein each latch position axially displaces the sealing cap over the connection element. Matsuda teaches a device comprising an element and a sealing cap, wherein the external surface of the element and the internal surface of the sealing cap includes complementary arresting means comprising non-threaded projections and recesses providing a plurality of discrete axial latch positions parallel to the central axis, wherein each latch position axially displaces the sealing cap over the element in order to secure the sealing cap to the connection element. Because both Bono and Matsuda teach complementary arresting means for securing a sealing cap to an element, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute one complementary arresting means for the other to achieve the predictable results of securing the sealing cap to an element.

Regarding claims 12 and 19, the combination of Bono and Matsuda disclose a device wherein the projections and recesses comprise a plurality of bulges formed on the external surface of the connection element, wherein the bulges are aligned parallel to the central axis and a plurality of complementary depressions formed in the second cavity of the sealing cap, wherein the depressions are aligned parallel to the central axis. Regarding claims 18 and 20, the combination of Bono and Matsuda disclose a device wherein the bulges and depressions have a saw-tooth shaped profile when viewed in a cross-section surface parallel to the central axis.

4. Claims 1-9, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bono (U.S. Patent 6,755,829) in view of Matsuda (U.S. Patent 5,395,003) further in view of Katz (U.S. Patent 5,989,254).

Regarding claim 2, Bono and Matsuda disclose a device wherein the arresting means are arranged orthogonal to the central axis on the periphery of the connection element and on the periphery of the second cavity in the sealing cap. Regarding claim 4, the combination of Bono and Matsuda discloses a device wherein the shoulder has a level bearing surface of circular-ring shape. Regarding claim 5, the combination of Bono and Matsuda disclose a device wherein the sealing cap further includes two slots arranged orthogonal to the second channel, the slots extending from the front end of the sealing cap. Regarding claims 1-9, 16, and 17, the combination of Bono and Matsuda disclose the invention as claimed except for the device further comprising a means to prevent the bone fixation means from passing through the cavity prior to attachment of the sealing cap to the connection element, wherein the securing means comprises a pin and the connection element has a hole extending into the connection element from the cavity and transverse to the central axis, the pin capable of being pressed into the hole. Katz teaches a device comprising a securing means that includes a pin and hole configuration in order to restrain the connection element to the pedicle screw (column 2 lines 61-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the device of Bone modified by Matsuda further comprising a securing means in view of Katz in order to restrain the connection element to the pedicle screw.

5. Claims 1-8, 10, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bono (U.S. Patent 6,755,829) in view of Matsuda (U.S. Patent 5,395,003) further in view of Nichols (U.S. Patent 6,090,111).

Regarding claim 2, Bono and Matsuda disclose a device wherein the arresting means are arranged orthogonal to the central axis on the periphery of the connection element and on the periphery of the second cavity in the sealing cap. Regarding claim 4, the combination of Bono and Matsuda discloses a device wherein the shoulder has a level bearing surface of circular-ring shape. Regarding claim 5, the combination of Bono and Matsuda disclose a device wherein the sealing cap further includes two slots arranged orthogonal to the second channel, the slots extending from the front end of the sealing cap. Regarding claims 1-8, 10, and 16, the combination of Bono and Matsuda disclose the invention as claimed except for the device further comprising a means to prevent the bone fixation means from passing through the cavity prior to attachment of the sealing cap to the connection element, wherein the securing means comprises a snap ring sized and configured to be received within a corresponding groove formed on the bone fixation means. Nicholas teaches a device comprising a securing means that includes a snap ring and groove configuration in order to retain the pedicle screw (column 4 lines 5-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the device of Bono modified by Matsuda further comprising a securing means in view of Nichols in order to retain the pedicle screw.

Response to Arguments

6. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for cited references the examiner felt were relevant to the application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Woodall whose telephone number is 571-272-5204. The examiner can normally be reached on Monday to Friday 8:00 to 5:30 EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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